

SUPPORT FOR THE AMENDMENTS

Claims 1 and 3 are herein canceled. Applicants make no statement with respect to the propriety of the grounds for rejection of these claims and preserve the right to present the rejected claims in a continuation application without prejudice.

Claim 2 is written as an independent claim. Claims 7, 8 and 9 are rewritten to show proper dependency following cancellation of Claims 1 and 3.

Support for the amendment of Claim 10 is found in Claim 1. The description of Claim 1 is herein added to Claim 10. As indicated above, Claim 1 is herein canceled.

No new matter is believed added to this application by entry of this amendment.

Upon entry of this amendment, Claims 4-26 are active. Claims 4-9 and 11-26 are withdrawn.

REMARKS/ARGUMENTS

The claimed invention is directed to a process for the manufacture of a sol composition for coating of plastic lenses. Stable coating compositions which have good warm water resistance, good weather resistance, good light resistance and a high refractive index are sought.

The claimed invention addresses this problem by providing the method for producing a sol as described in Claim 10 of the presently claimed invention. No such method is disclosed or suggested in any the cited references.

Applicants respectfully note that Claim 10 is herein amended to be of independent form. The description of Claim 1 from which it originally depended has been added to Claim 10.

Applicants respectively note that the claimed method includes a hydrothermal treatment of the stannic oxide sol. A hydrothermal treatment is described on page 50, lines 16-23 as follows:

“ . . . employing a stannic oxide sol subjected to a hydrothermal treatment (autoclave treatment) as a material, . . . , it is possible to carry out a hydrothermal treatment at a temperature of from 100 to 300°C for 0.1 to 200 hours.”

Further, Applicants have described the effect of the hydrothermal treatment beginning on page 48, line 27 and continuing to page 49 of the specification as follows:

“Each of the above sols can be classified into a case where stannic oxide is not treated in an autoclave and a case where it is treated in an autoclave. The sol in the latter case provides excellent performance of the former, and further, a coating film obtained by coating each sol as a coating composition on a substrate and baking it has a high refractive index (refractive index of from 1.8 to 1.9 as calculated from the coating film.”

This result is demonstrated by comparison of Examples 5 and 6 on pages 78 -83 of the specification. In Example 5, alkaline stannic sol A-1-2, not hydrothermally treated, was used, while in Example 6, hydrothermally treated stannic sol A-1-4 was used. Otherwise the two examples are similar. The index of refraction obtained with the coating of Example 5 is 1.87, while that of Example 6, is 1.92.

No such process, including hydrothermal treatment of the stannic oxide sol, is disclosed or suggested in any of the cited references.

The rejections of Claims 1 and 3 under 35 U.S.C. 102(b) over Suzuki et al. (EP 1077236 equivalent to U.S. 6,626,987), under 35 U.S.C. 102(e) over Suzuki et al. (U.S. 7,208,220), on the ground of nonstatutory obviousness-type double patenting over Suzuki et al. (U.S. 6,626,987) and on the ground of nonstatutory obviousness-type double patenting

over Suzuki et al. (U.S. 7,208,229) are moot in view of the cancellation of Claims 1 and 3 herein.

Applicants respectfully note that neither cited reference describes or suggests a method for producing a sol containing modified stannic oxide particles including a hydrothermal treatment of a stannic oxide aqueous sol according to Claim 10 of the present invention. This is further described in the following paragraphs.

The rejections of Claim 10 under 35 U.S.C. 103(a) over Watanabe et al. (U.S. 5,460,738) in view of Suzuki (EP 1077236 equivalent to U.S. 6,626,987), and Suzuki (U.S. 7,208,220) is respectfully traversed.

Neither of the cited combinations discloses or suggests the method of the claimed invention including a hydrothermal treatment of the stannic oxide sol.

Watanabe describes a process for producing a sol including:

- “(a) a step of mixing an aqueous sol of stannic oxide containing particles of stannic oxide . . . and an aqueous solution containing an oxyzirconium salt . . . ;
- (b) a step of **heating the mixed solution obtained in step (a) at a temperature of from 60° to 200°C. for 0.1 to 50 hours to form an aqueous sol of stannic oxide-zirconium oxide composite . . . ;**” (Col. 2, line 66 to Col. 3, line 9) (Bold added).

Nowhere does this reference disclose or suggest a hydrothermal treatment of the stannic oxide sol as according to the claimed invention. Watanabe describes obtaining the stannic oxide colloid particles as in Col. 3, lines 47-52, as follows:

“The colloidal particles of stannic oxide to be used for the step (a) can readily be prepared in the form of a sol of colloidal particles having a particle size of about 4 to 50 nm by a conventional method such as an ion exchange method, a peptization method, a hydrolysis method or a reaction method.”

Applicants respectfully emphasize that Watanabe describes a treatment of the mixture of stannic oxide and zirconium oxide. Nowhere does this reference disclose or suggest a

hydrothermal treatment of the stannic oxide before mixing with zirconium oxide, according to the claimed invention.

The Examiner acknowledges that Watanabe does not describe “expressly coating the SnO₂/ZrO₂ composite particles with an alkylamine/Sb₂O₅ compound” (page 10, lines 5-6 and page 12, lines 1-2; Official Action dated May 27, 2008) and cites Suzuki ‘236 and ‘229 to show the acknowledged deficiency.

However, Applicants respectfully submit that neither secondary reference discloses or suggests a hydrothermal treatment of the stannic oxide before mixing with zirconium oxide, according to the claimed invention, and therefore neither reference cures the basic deficiency of Watanabe.

Suzuki (‘236) describes beginning at Col. 5, line 66 (U.S. 6,626,987) and continuing to Col. 6, the following:

“Colloidal particles (a) of a metal oxide having primary particle diameters of from 2 to 60 nm may be produced by a known method such as an ion exchange method, a peptization method, a hydrolysis method or a reaction method.”

Likewise, Suzuki (‘229) at Col. 5, line 66 and continuing to Col. 6 uses the same description.

Applicants respectfully call the Examiner’s attention to the following excerpt from the Office’s own discussion of “**Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.***”

“The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention.⁴³ “[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the

claimed new invention does.”⁴⁴ **If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art,”**
(Federal Register, Vol. 72, No. 195, page 57529) (Bold added)

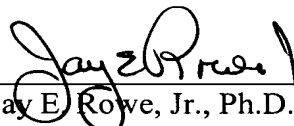
Applicants respectfully submit that neither the primary reference nor either secondary reference describes a hydrothermal treatment of hydrothermal treatment of the stannic oxide before mixing with zirconium oxide, according to the claimed invention. Therefore, all the claimed elements of the present invention are not known in the cited references.

In view of the above, Applicants respectfully submit that according to the KSR guidelines above, a conclusion of obviousness cannot be supported. Accordingly, withdrawal of the rejections of Claim 10 under 35 U.S.C. 103(a) over Watanabe in view of Suzuki (‘236), and Suzuki (‘220) is respectfully requested.

Applicants respectfully submit that Claim 10 of the above-identified application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon


Jay E. Rowe, Jr., Ph.D.
Registration No. 58,948

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)